

# 28 SUMMARY OF COMMITMENTS AND MITIGATION MEASURES

## 28.1 INTRODUCTION

The EIS, Volume 1, Chapter 28 Summary of Commitments and Mitigation Measures included a range of possible mitigation measures proposed to manage the Project impacts throughout the life of the mine. These broad environmental protection mitigation measures and other commitments which the WJV has committed to adopting are summarised here in Chapter 28 and reflect the policies of the WJV in undertaking the Project.

Some mitigation measures in the EIS have been revised, and additional mitigation measures proposed based on the content of this Supplementary EIS. The WJV's commitments for the Project are presented in full in Table 28-1 of this chapter, which supersedes Table 28-1 of the EIS.

The environmental protection commitments required by section 203 of the EP Act that the WJV proposes for the mining activities to protect or enhance relevant environmental values under best practice environmental management, while allowing for development in accordance with the object of the EP Act are identified in Chapter 27 (the Environmental Management Plan chapter).

## 28.2 WANDOAN COAL PROJECT LIST OF COMMITMENTS

Volume 1, Chapter 28 Summary of Commitments and Mitigation Measures included a number of commitments towards developing and implementing monitoring programs during the life of the mine and following decommissioning. These commitments include:

- The WJV will continue to monitor weather conditions of Wandoan to establish baseline climate data, utilising the monitoring stations already established for climate, air quality and noise.
- The WJV will monitor atmospheric conditions during mine operations to assist with prediction of inclement weather conditions and management of operations.
- In consultation with the Department of Natural Resources and Water (now the Department of the Environment and Resource Management (DERM)), the WJV will develop and maintain an ongoing groundwater monitoring program of the coal seam groundwater systems.
- The WJV will maintain on-going monitoring of watercourses both upstream and downstream of the Project areas and established management procedures to monitor potential and/or actual impacts requiring mitigation.
- A weather forecasting and dust monitoring system that will initiate the application of management and mitigation strategies prior to the onset of an air quality exceedance will be developed.
- An adaptive flora and fauna monitoring program for the Project will be developed and implemented aimed at achieving a better understanding of impacts and rehabilitation actions to flora and fauna throughout the study area. Monitoring will also include exotic weeds and feral animals.
- Monitoring of aquatic systems (e.g. water quality of creeks and Project-related dams, a long-term aquatic ecology monitoring program and insect prevalence especially mosquitoes) will be undertaken generally in accordance with the recommendations in Chapter 17B, section 17B.6.10, to ensure adverse Project impacts are avoided, minimised and mitigated.
- The WJV, with the cooperation of landowners, will conduct condition surveys of buildings and structures within 2 km of blasting activities prior to commencing blasting operations. Subject to the findings of the condition surveys, the WJV may implement specific mitigation measures for potentially affected structures.



## Wandoan Coal Project

The requirement for these plans to be prepared and implemented will be incorporated in the Project's Plan of Operations.

The following table summarises the WJV's commitments and mitigation measures in the planning, early works, construction, operations and decommissioning phases of the Project. This table replaces the table presented in the EIS.

Table 28-1: Summary of Commitments and Mitigation Measures

Chapter	Commitments
General – Operations  Chapter 6	<p>The WJV provides the following commitments for the operation of the MLA areas:</p> <ul style="list-style-type: none"> <li>• All mining activities will be conducted according to Environmental Authority conditions and a current Plan of Operations.</li> <li>• The WJV will develop accommodation facilities with a capacity of up to approximately 1,425 persons during the peak construction phase of the Project. The facilities may progressively reconfigured during the initial years of operations to provide accommodation and amenities for the permanent and regular maintenance shutdown crews of up to approximately 844 by Year 4.</li> <li>• The WJV will progressively construct up to approximately 15 houses and 10 duplexes (or similar) for its staff in the Wandoan area, with housing for a total of 35 personnel.</li> <li>• The WJV will work with Western Downs Regional Council on the development of land for the WJV housing requirements within the Wandoan area.</li> <li>• Mining will not initially be undertaken in the first years of mine operations within a 2km zone around the western side of the township of Wandoan. The potential for future mining within the 2km zone will be dependent upon the monitoring program results carried out for a period of not less than 3 years. Not less than 3 months prior to the commencement of any mining activities in the 2 km zone, the WJV will assess the results of the monitoring of the actual mining conditions associated with air quality, noise and vibration, and compare these with the predicted potential air quality, noise and vibration impacts shown in the EIS and Supplementary EIS, and the requirements of the Environmental Authority. Further modelling will be undertaken, if necessary. Mining within the 2 km zone may only be undertaken, if the assessment and further modelling indicate that mining can be undertaken within the 2 km zone in compliance with the Environmental Authority. A written report will be provided to the Administering Authority about the review and any additional modelling. If this occurs, the community will be consulted at the relevant time, prior to mining commencement.</li> <li>• Fine rejects (tailings) disposal to mined-out pit voids will be assessed to determine whether the criteria for high hazard dams containing hazardous waste are met, or designed and managed in accordance with accepted standards, such as the former Department of Mines and Energy Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (1995) for each and every mined-out pit void used as a fine rejects (tailings) storage facility.</li> <li>• All state and local road realignments will be undertaken in consultation with the relevant government agencies, including the local authorities, the Department of Transport and Main Roads (formerly the Department of Main Roads), and Department of Environment and Resource Management (formerly the Department of Natural Resources &amp; Water).</li> <li>• Prior to mining commencing in Wubagul Pit, resulting in the partial road closure of Peakes Road, upgrading of Burunga Lane from the Leichhardt Highway to Peakes Road will be undertaken.</li> <li>• With regard to flood immunity and wide load accessibility and use, the WJV commits to a proposed solution as generally described in section 6.6.2 such as constructing:</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>▶ a new crossing of One-Arm Man Creek on the Jackson-Wandoan Road</li> <li>▶ a new crossing of Wandoan Creek at or near the existing Sundown crossing on Bundi Road.</li> </ul> <ul style="list-style-type: none"> <li>• With regard to local roads, the WJV will enter into an Infrastructure Agreement with Western Downs Regional Council, with the final contents of the agreement subject to ongoing discussions between the WJV and Western Downs Regional Council.</li> <li>• The WJV will provide ongoing telephone connection to occupied properties within the MLA areas and to surrounding landowners during the construction and operation of the mine. The level of service of relocated infrastructure will be at least equal to the current infrastructure. The relocation work will be co-ordinated with relevant telecommunications provider(s) to ensure minimal disruption to telecommunication users.</li> <li>• The WJV will provide ongoing power supply to properties occupied within the MLA areas and to surrounding properties during the construction and operation of the mine. The level of service of relocated infrastructure will be at least equal to the current infrastructure. Relocation of the electrical infrastructure will be co-ordinated with Ergon to ensure minimal disruption to power users.</li> <li>• The WJV will continue to consult with the directly affected landholders about property lease back arrangements.</li> </ul>
<p>Sustainability, Greenhouse Gas Reduction and Climate Change</p> <p>Chapter 6 and Chapter 14</p>	<p>Energy Efficiency and Sustainability</p> <p>Recycling process water</p> <ul style="list-style-type: none"> <li>• To minimise the demand for raw water supply, recirculation and recycling of process water throughout the Coal Processing Plant (CPP) will be incorporated into coal processing design features and operations.</li> <li>• Recycled water will be used in preference to raw water for dust suppression, if adopted water quality criteria are met.</li> </ul> <p>Rainwater capture</p> <ul style="list-style-type: none"> <li>• The WJV will assess the viability of capturing rainwater for beneficial reuse (i.e. Possible use as drinking water and in landscape watering) associated with the MIA and accommodation facilities during the detailed design phase. Capture of rainwater from roofs of buildings in the MIA and accommodation facilities will be undertaken, where practicable.</li> </ul> <p>In-pit disposal of rejects</p> <ul style="list-style-type: none"> <li>• Progressive disposal of coarse and fine rejects into the voids of already mined pits will be undertaken to provide an effective long term rejects storage option that does not sterilise future coal pit reserves, and allows for a reduced environmental footprint by not disturbing areas in addition to the mining pits.</li> </ul> <p>Land disturbance</p> <ul style="list-style-type: none"> <li>• The area of disturbed land at any one time will be minimised as far as practicable through planning and staged development. Progressive rehabilitation will be undertaken over the life of the mine to minimise the cleared footprint of the mine at any one time.</li> </ul>

Chapter	Commitments
	<p>Equipment Purchase and Energy Efficiency</p> <ul style="list-style-type: none"> <li>• An energy efficiency audit will be undertaken, where appropriate, during the detailed design phase.</li> <li>• The use of high efficiency electrical motors throughout the mine site and the use of variable speed drive pumps with high-efficiency linings at the coal handling and preparation plant will be considered and implemented where practicable as part of an energy efficiency audit.</li> <li>• Installing light-sensitive switches on lighting equipment and energy efficiency lightbulbs throughout the Project operations and Wandoan community will be investigated and implemented where practicable.</li> <li>• Installation of energy saving devices will be undertaken within the MIA buildings and accommodation facilities, where practicable.</li> <li>• In developing the accommodation facilities, the WJV will endeavour to use leading industry practice in terms of sustainability and energy efficiency, including design maximising air flow, shading and beneficial landscaping, use of energy efficient (eg. Solar) hotwater systems, water saving devices and energy efficiency lighting.</li> <li>• The WJV will investigate, and implement where practicable, roof-mounted solar hot water systems associated with the accommodation facilities as part of the detailed design process.</li> <li>• The WJV is investigating renewable energy sources for components of the Project (such as the mine accommodation facilities). This may include on site solar generation.</li> </ul> <p>Preventative maintenance</p> <ul style="list-style-type: none"> <li>• Regular monitoring of electrical load on the draglines and the swing distance will be undertaken to improve dragline performance and efficient use of energy.</li> <li>• Undertaking electrical calibration checks on the draglines as per the manufacturer’s instructions.</li> <li>• A program of bucket inspection and repair will be adopted to prevent the likelihood of poorly maintained dragline buckets reducing the efficiency of each dragline load through increasing the amount of electricity required to move a tonne of overburden.</li> <li>• Regular monitoring of the compressed air circuit so that leaks are repaired in a timely manner, to maximise the operating efficiency of the compressor.</li> </ul> <p>Mine planning</p> <ul style="list-style-type: none"> <li>• Haul truck scheduling, routing and idling times will be optimised to minimise the amount of diesel consumed.</li> <li>• Pit access ramps will be designed to limit the amount of effort required for fully-laden trucks to climb.</li> <li>• Haul roads will be designed to reduce rolling resistance.</li> <li>• The location of ROM and overburden dumps will be optimised to limit the amount of distance haul trucks need to cover while fully laden to</li> </ul>

Chapter	Commitments
	<p>reduce fuel burn.</p> <ul style="list-style-type: none"> <li>The above measures will be incorporated into a Greenhouse Gas Reduction management plan.</li> </ul> <p>Social Sustainability Commitments</p> <p>Airstrip</p> <ul style="list-style-type: none"> <li>Subject to consultation and agreement with the Western Downs Regional Council or Banana Shire Council, the WJV will contribute to developing a new public airstrip near the Wandoan district or upgrading the existing Taroom Aerodrome.</li> </ul> <p>Municipal waste and recycling facility</p> <ul style="list-style-type: none"> <li>Subject to consultation and agreement with the Western Downs Regional Council, the WJV will commit to assisting the Council in developing a new multi-user municipal waste management facility for the Wandoan area, to be owned, managed and operated by the Council.</li> </ul> <p>Potable water treatment plant upgrade</p> <ul style="list-style-type: none"> <li>On the basis agreement is reached between the WJV and the Western Downs Regional Council that the potable water will be available for Project use the WJV will commit to upgrading the existing potable water treatment facilities in Wandoan township to improve existing facilities and provide improvements to cater for the maximum expected demand for the Project without placing increased pressure on the current local supply, with Western Downs Regional Council as the Proponent for the upgrade.</li> </ul> <p>Wastewater treatment plant upgrade</p> <ul style="list-style-type: none"> <li>On the basis agreement is reached between the WJV and the Western Downs Regional Council that the waste water treatment system will be available for Project use the WJV will commit to upgrading Wandoan's sewerage treatment and wastewater disposal facilities to meet the needs of the Project and the expected growth in Wandoan township, with Western Downs Regional Council as the Proponent for the upgrade.</li> </ul> <p>Sustainable Resource Communities</p> <ul style="list-style-type: none"> <li>The WJV's commitments to sustainable communities are detailed in Chapter 21 and in the corresponding section below.</li> </ul> <p>Post mining land use</p> <ul style="list-style-type: none"> <li>The WJV will minimise the reduction in agricultural productivity of the land within the MLA areas through progressive rehabilitation to be suitable for the post mine land use.</li> </ul>
<p>Climate (Weather Conditions) Chapter 7</p>	<ul style="list-style-type: none"> <li>The WJV will continue to monitor weather conditions of Wandoan to establish baseline climate data, utilising the monitoring stations already established for climate, air quality and noise.</li> <li>The WJV will monitor atmospheric conditions during mine operations to assist with prediction of inclement weather conditions and management of operations.</li> </ul>

Chapter	Commitments
<p>Land Use Chapter 8</p>	<p>Land Use</p> <ul style="list-style-type: none"> <li>• The WJV will continue discussions with each of the petroleum exploration tenement holders in relation to the Project and its potential impact on future petroleum operations. These discussions may result in agreements with some or all of the ATP holders who have tenements overlapping the MLAs.</li> <li>• The WJV has entered into discussions with Roma Petroleum NL with a view to negotiating a coordination arrangement.</li> <li>• During the detailed design process, the finalised gas pipeline alignment (if required) will be developed to accommodate tenement requirements so as to prevent or minimise potential sterilisation of a resource, in consultation with Santos QNT Pty Ltd, tenement holder for PL 176.</li> <li>• If the gas supply pipeline is required, the WJV will consult with land owners and tenement holders (where applicable) with a view to entering into agreements regarding easements or land access rights.</li> </ul> <p>Native Title</p> <ul style="list-style-type: none"> <li>• Where it cannot be determined that native title has been extinguished over relevant areas, the appropriate "future act" process under the Native Title Act 1993 (Cth) will be adopted.</li> <li>• For areas within the MLAs where it cannot be established that native title has been extinguished, the WJV will follow all proper processes under the NTA to address any native title issues. At the WJV's request, the State has initiated the "right to negotiate" process under the NTA, and the WJV has continued the process through consultation with the Iman People #2 and the State regarding the grant of the mining leases.</li> <li>• In relation to the gas supply pipeline, further assessment is being undertaken to finalise the native title position. Once the WJV has established the preferred power supply option for the Project, if it cannot be determined that native title has been extinguished on the basis of tenure for the whole pipeline area, the WJV will follow the relevant future act requirements under the NTA.</li> </ul> <p>Contaminated land</p> <ul style="list-style-type: none"> <li>• A waste management plan will be adopted to avoid, minimise and mitigate potential contamination from the Project.</li> <li>• The environmental impact assessment identified properties that may be impacted by land contamination from existing and past agricultural land uses. The extent of potential contamination at identified sites will be investigated on a progressive basis prior to mining activities taking place, and a soil sampling program will be implemented as appropriate. Based on the findings of the soil sampling program, appropriate mitigation measures will be implemented to manage any existing contamination.</li> <li>• If required, approvals and disposal permits will be obtained from the EPA for the management, removal and disposal of any contaminated soil, in accordance with the Environmental Protection Act 1994.</li> <li>• Where suspected contamination is encountered during construction or operations, the impacted soil will be managed under a Site Management Plan (SMP) (including excavation or capping, where appropriate).</li> <li>• Any contaminated site identified from the soil sampling program will be listed on the EMR or other appropriate register.</li> </ul>

Chapter	Commitments
	<p>Demolition or relocation of existing buildings/infrastructure</p> <ul style="list-style-type: none"> <li>• Prior to the commencement of demolition of existing buildings/infrastructure, a hazardous materials survey will be undertaken of the structure to identify the presence of hazardous materials, including asbestos. This assessment will identify the presence of such materials and act as a basis to establish a hazardous materials management plan.</li> <li>• Any asbestos audits of structures will be in accordance with the relevant legislation and asbestos found will be disposed of by specialist contractors to an appropriately licensed facility.</li> </ul> <p>Vehicle washdown</p> <ul style="list-style-type: none"> <li>• To prevent land contamination from wash water, washdown facilities will be constructed in accordance with AS 1940:2004 Storage and Handling of Flammable and Combustible Liquids.</li> <li>• Hydrocarbon effluent collected will be stored appropriately and collected by a licensed waste collector.</li> </ul> <p>Fuel and other chemical storage</p> <ul style="list-style-type: none"> <li>• All fuel and chemicals storage areas will be designed to meet AS 1940:2004 Storage and Handling of Flammable and Combustible Liquids.</li> <li>• If rain water is contained within storage area bunds, the water will be analysed and a determination made as to how to appropriately manage and dispose of the collected water.</li> <li>• To reduce the potential impact in the event of a fuel or chemical release, emergency spill response equipment will be stored in appropriate areas. Some of the mine workforce will be trained to operate these facilities.</li> </ul> <p>Maintenance activities</p> <ul style="list-style-type: none"> <li>• The facilities containing maintenance activities will be designed to meet AS 1940:2004 Storage and Handling of Flammable and Combustible Liquids. Spill kits will be provided to manage small losses of containment.</li> </ul> <p>Stock Routes</p> <ul style="list-style-type: none"> <li>• Continuing consultation will be carried out with Western Downs Regional Council, DERM and Department of Transport and Main Roads to finalise the closure and realignment of SRNs impacted by the Project.</li> <li>• The WJV will assist the above entities, if required, to facilitate the amendment of the Taroom Stock Route Network Management Plan, 2005 to 2009 (or other such plan prepared by Western Downs Regional Council) under section 114 of the Land Protection (Pest and Stock Route Management) 2000.</li> <li>• The closure and realignment of stock route components for the Project will have no significant net loss on the overall operational integrity of the SRN local to the Project area.</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>Active stock routes associated with both the Jackson Wandoan Road and the Bundi Road will be re-established with these road relocations following consultation with Western Downs Regional Council, Department of Transport and Department of Transport and Main Roads and DERM. Relocated active stock routes will be at least the same width as the stock routes being replaced, being 'like for like', and will be safe for travelling stock and drovers and the travelling public. Camping and water reserves will either be preserved or replaced with equivalent facilities.</li> </ul>
<p>Geology, Mineral Resources, Overburden and Soils</p> <p>Chapter 9</p>	<p>Topography</p> <ul style="list-style-type: none"> <li>The design of the post-mining landform will take into account, and where possible imitate, existing topographic values.</li> </ul> <p>Overburden</p> <p>Within the MLA areas:</p> <ul style="list-style-type: none"> <li>The WJV will, where appropriate analyse and characterise overburden and interburden generally as specified in Chapter 9, section 9.6.2, and manage overburden stockpiles generally in accordance with the relevant mitigation measures outlined in Chapter 9.</li> <li>The growth medium potential of overburden will be managed generally in accordance with the Erosion and Sediment Control Plan, which will include, where appropriate, relevant mitigation measures specified in Chapter 9, Section 9.6.2.</li> <li>Dispersion of overburden material will be managed generally in accordance with the Erosion and Sediment Control Plan, which will include, where appropriate, the relevant mitigation measures specified in Chapter 9, section 9.6.2.</li> <li>Overburden stockpiles will be developed to maximise stability. Measures will include, those specified in Chapter 9, section 9.6.2 where appropriate.</li> </ul> <p>Soils</p> <ul style="list-style-type: none"> <li>The WJV will prepare an Erosion and Sediment Control Plan(s) for site preparation, construction and operation phases, that will incorporate, where appropriate, the soil control measures detailed in Chapter 9, Section 9.6 of the EIS. The Erosion and Sediment Control Plan(s) will include preparation of infrastructure specific plans (for example, for the accommodation facilities and proposed gas pipeline).</li> <li>Drainage design of and around proposed structures and permanent landforms will be carried out generally in accordance with the recommended mitigation measures in Chapter 9, section 9.6.</li> <li>Topsoil and overburden stockpiles will be managed generally in accordance with the recommended mitigation measures in Chapter 9, sections 9.6.2 and 9.6.3 to provide stockpile viability and soil conservation.</li> <li>For the gas supply pipeline, management of soil, soil stockpiles, trench fill, drainage, landform and monitoring will be carried out generally in accordance with the recommended mitigation measures in Chapter 9, section 9.6.2 (or equivalent or better mitigation measures that may be identified during the Project construction).</li> </ul>

Chapter	Commitments
	<p>Fossil material</p> <ul style="list-style-type: none"> <li>In the event potentially significant fossilised material is identified during mining activities, work in the immediate vicinity of the find will stop as far as practicable to preserve the fossil, and the Queensland Museum will be alerted.</li> </ul> <p>Salinity and Salinity from CSM Water</p> <p>The following mitigation measures will be applied, where appropriate, in relation to salinity of soils:</p> <ul style="list-style-type: none"> <li>the WJV will avoid using the topsoil of Teviot as a topsoil layer for rehabilitation. Where suitable supply of other topsoil is available, this will be used in preference to Teviot, or Teviot soil mixed with this soil</li> <li>the subsoils of Cheshire, Teviot and Woleebee will, as far as practicable, be buried within spoil stockpiles and covered with materials that are more stable, or for the pipeline and infrastructure, will be buried as low as feasible to avoid the rooting depth of plants and crops.</li> </ul> <p>If selected as the Project's Raw Water Supply, prior to commencement of using CSM water for dust suppression,</p> <ul style="list-style-type: none"> <li>In addition to the study already undertaken (Landloch 2009), further site-specific assessments will be undertaken using potential haul road construction material and CSM water for the Project if the haul road material differs to the material considered in the existing CSM Water application study. These assessments will relate to the following: <ul style="list-style-type: none"> <li>potential accumulation of precipitated salt at the road surface</li> <li>potential for the precipitated salts to be dissolved by rainfall, and to move in runoff</li> <li>the likely interactions between quality of runoff water with rainfall rate and volume.</li> </ul> </li> <li>If CSM water is used, pit ramps will be removed or buried as a component of decommissioning and rehabilitating mine pits.</li> <li>Based on the finding of the site-specific assessment, if required periodic monitoring of salinity and sodicity during the operation of a haul road will be conducted. If monitoring suggests a build-up of high levels of salinity or SAR, suitable management measures will be investigated and implemented.</li> <li>Measurements of soil salinity and sodicity prior to the decommissioning of a haul road will be conducted, including the road surface, drains, sediment ponds and adjacent land. Where required, material with high salinity or SAR will be excavated and removed, or otherwise remediated, during haul road rehabilitation.</li> <li>If required, a reverse osmosis treatment facility will be developed to treat approximately 450 kL/day (equivalent to 165 ML/annum) near the CPP to treat a small amount of CSM water for general wash purposes around the MIA and CPP.</li> <li>if a reverse osmosis treatment facility is constructed, the volume and quality of reject water will be assessed to ensure that the reject water can be disposed of in the tailings storage facilities, or an alternative disposal method will be provided.</li> </ul>

Chapter	Commitments
	<p data-bbox="450 384 622 408">Mineral Waste</p> <p data-bbox="450 421 2051 472">While the risk of acid producing potential has been found to be low to negligible, potential measures to monitor and manage acid producing potential in rejects include:</p> <ul data-bbox="450 488 2051 730" style="list-style-type: none"> <li data-bbox="450 488 2051 539">• Characterisation of tailings and coal rejects acid producing potential, based on tailings produced during bulk sample operations, prior to commencement of mining.</li> <li data-bbox="450 555 2051 632">• Laboratory characterisation of selected samples of tailings material will be conducted during the tailings disposal process to confirm the acid generation potential. This characterisation will be in accordance with the Assessment and Management of Acid Drainage (Department of Primary Industries 1995) and/or other relevant guidelines.</li> <li data-bbox="450 647 1895 671">• Records will be kept of tailings disposal to indicate locations and characteristics of tailing stored within the tailings storage facility.</li> <li data-bbox="450 687 2051 730">• If identified by testing, and to prevent land contamination from potentially acid forming overburden, suitable control strategies will be implemented, such as selectively placing any such materials and covering with acid neutralising overburden.</li> </ul>
Groundwater  Chapter 10	<ul data-bbox="450 754 2051 1294" style="list-style-type: none"> <li data-bbox="450 754 1570 778">• The WJV commits to no direct use of GAB water for non-potable operational water supply purposes.</li> <li data-bbox="450 794 2051 837">• Construction water up to 700 ML during two-to-three year construction period will be sourced from the GAB as a last resort if non-GAB sources of water are insufficient for construction demand.</li> <li data-bbox="450 853 2051 930">• In consultation with the Department of Environment and Resource Management, the WJV will continue to develop and maintain an ongoing groundwater monitoring program of the coal seam groundwater systems. The groundwater monitoring network will be carried out generally in accordance with section 10.8.</li> <li data-bbox="450 946 2051 997">• If suitable, existing available deep bores (600m – 1200m) will be used to distinguish between potential impacts from shallow surface mining from the Project and deeper CSM production projects proposed in the vicinity of the Project.</li> <li data-bbox="450 1013 2051 1115">• After sufficient groundwater data has been collected from the current and proposed monitoring bores an additional assessment of the dewatering will be conducted. A conceptualisation of the hydrogeology, the zones of influence, and the identification of shallow bores within these zones, will be compiled. The groundwater monitoring network will be altered accordingly to monitor groundwater levels within these areas and bores allowing for the verification or alteration of predictions.</li> <li data-bbox="450 1131 2051 1233">• Where the groundwater modelling or monitoring demonstrates that mining activities will have an unacceptable impact on the use of community or other multi-user bores within the area surrounding the MLAs, the WJV will consult with impacted users in relation to appropriate “make good” mitigation measures. Such measures may include, where appropriate, sinking of new bores, replacement or deepening existing bores, or providing an alternative water supply.</li> <li data-bbox="450 1249 1962 1294">• Where there is a risk of contamination from artificial recharge from water storage, design considerations such as the use of appropriate impermeable linings will be considered and adopted where necessary.</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>The risk of potential contamination of aquifers due to infiltration from fuel or chemical spills will be addressed by the design of appropriate storage, bunding and the development and implementation of procedures.</li> </ul> <p>The WJV will continue to extract groundwater within the limits of existing license allocations.</p>
<p>Water supply</p> <p>Chapter 11</p>	<ul style="list-style-type: none"> <li>The WJV will develop a Water Management Plan (WMP) generally in accordance with the mitigation measures described in Chapter 11, section 11.6, which will guide the Water Management System, and which will include measures for the beneficial re-use of water as far as may be practicable in mine operations and to reduce total raw water offtake (from either CSM or Glebe Weir).</li> <li>The WJV will maintain on-going monitoring of watercourses both upstream and downstream of the Project areas and established management procedures to monitor potential and/or actual impacts requiring mitigation.</li> <li>The WJV will generally implement the mitigation measures outlined within Chapter 11, section 11.6 as appropriate or equivalent or better mitigation measures that may be identified during the life of the Project.</li> </ul>
<p>Transportation</p> <p>Chapter 12</p>	<ul style="list-style-type: none"> <li>The WJV will continue to consult with the Department of Transport and Main Roads and the Western Downs Regional Council for the adjacent road network (State controlled roads and local roads) to ensure the safety of the public (including school buses) and construction workers and to minimise as far as is practicable disruptions to traffic.</li> <li>Road relocations adjacent to the MLA (including the Jackson-Wandoan Road) will be constructed to Main Roads standards and appropriate traffic management measures will be employed during construction.</li> <li>During construction of pipelines where roads are intersected, appropriate traffic management techniques will be employed to ensure the safety of construction workers and the public, and to minimise disruption to traffic. Road pavements will be maintained and repaired to a suitable condition post construction works.</li> <li>Where pipelines cross the proposed Surat Basin Rail and existing Queensland Rail Corridors or SCRs, written authorisation will be obtained from the Chief Executive in accordance with the Transport Infrastructure Act 1994.</li> <li>All necessary approvals will be obtained from Main Roads or local councils for the use of road reserves for the pipeline alignment.</li> <li>If required, the school bus stop currently located at the junction of Booral Road and Grosmont Road will be relocated to ensure children are a safe distance from mine activities, and will occur in consultation and conjunction with the school bus operator.</li> </ul>
<p>Air Quality</p> <p>Chapter 13</p>	<p>Air Quality Management Plan</p> <ul style="list-style-type: none"> <li>An Air Quality Management Plan will be prepared in accordance with Environmental Protection Agency Guideline – Preparing environmental management plans (March 2003) to address construction and operations phases for all activities of the Project, including the gas supply pipeline. The general scope and application of the Plan is as described in the EIS and Supplementary EIS Chapter 13, section 13.5.</li> </ul>

Chapter	Commitments
	<p>Monitoring</p> <ul style="list-style-type: none"> <li>Undertake a monitoring program at representative sensitive receptors and their related upwind location described in the EM Plan</li> </ul> <p>Strategies or measures for dust minimisation</p> <p>Implement the strategies or measures for dust minimisation (or equivalent or better strategies or measures) in relation to mining activities which are likely to contribute significantly to dust described in the EIS and Supplementary EIS Volume 1 Chapter 13.</p> <p>Triggers for management actions</p> <ul style="list-style-type: none"> <li>Where monitoring has shown that the trigger level of a 24 hour rolling average of <math>120 \mu\text{m}/\text{m}^3</math> for particulate matter less than <math>10 \mu\text{m}</math> (<math>\text{PM}_{10}</math>) has been exceeded at a monitoring location, implement, as soon as reasonably practicable, management strategies and measures for dust minimisation which are likely to ensure the objective of <math>150 \mu\text{m}/\text{m}^3</math> is not exceeded at the monitoring location in relation to the mining activities which are likely to contribute significantly to dust at the monitoring location, such as:           <ul style="list-style-type: none"> <li>water spraying</li> <li>planting wind breaks</li> <li>application of chemical suppressants</li> <li>alteration of routes to increase distances</li> <li>progressive rehabilitation.</li> </ul> </li> </ul> <p>Operational Controls</p> <p>A suite of best practice operational controls have been applied to the model and agreed to be implemented by the WJV. These controls are listed in table 13-23 of the Supplementary EIS.</p> <p>Air quality monitoring</p> <ul style="list-style-type: none"> <li>The following supplementary air quality monitoring measures will be implemented:           <ul style="list-style-type: none"> <li>enhance the existing continuous real time <math>\text{PM}_{2.5}</math>, <math>\text{PM}_{10}</math>, TSP and meteorological monitoring stations network at representative sites to provide mine management with a clear picture of the likely impacts the mine operations may have on sensitive receptors</li> <li>prior to the commencement of Project construction and mine operations, chemical composition analysis of the sampled dust particles will commence, with the WJV committing to continue sampling and chemical composition analysis of dusts for the life of the Project, including for those of heavy metals</li> </ul> </li> </ul>

Chapter	Commitments
	<p>Proactive/predictive air quality management</p> <ul style="list-style-type: none"> <li>• The following supplementary proactive / predictive air quality management measures will be implemented: <ul style="list-style-type: none"> <li>▶ the surface of coal in wagons will be profiled to a flat “garden bed” shape, so as to provide a consistent streamlined surface which will reduced dust generation</li> <li>▶ the WJV will liaise with QR Limited regarding the timing and implementation of QR’s Transitional Environmental Program, and associated Coal Dust Management Plan (CDMP)</li> <li>▶ the WJV mine planning includes provision for various dust mitigation initiatives, including those under consideration in the Coal Dust Management Plan DMP</li> <li>▶ product coal supplied for rail transport will be washed in the coal processing plant (CPP)</li> <li>▶ product coal supplied for coal transport will have a coal surface water content designed to reduced dust emissions during rail transport</li> <li>▶ the coal train load-out facility will include over-loading controls designed to prevent wagon overloading and minimise the loss of coal during transport</li> </ul> </li> </ul>
<p>Noise</p> <p>Chapter 15</p>	<p>Noise Management Plan</p> <ul style="list-style-type: none"> <li>• A Noise Management Plan will be prepared prior to the respective phases of the Project to address construction and operations phases for all activities of the Project, including the gas supply pipeline. The Noise Management Plan will be developed generally in accordance with the relevant mitigation measures detailed in the EIS and Supplementary EIS, Chapter 15, section 15.6 (or “equivalent or better” mitigation measures that may be identified during the life of the Project), and in accordance with relevant guidelines including 2438 “Guide to noise control on construction, maintenance and demolition sites.”</li> <li>• The Noise Management Plan will detail performance objectives, actions and procedures (i.e. the Noise Management System).</li> <li>• The Plan will be regularly reviewed based on monitoring results. Key components of the proposed noise management system include the following (further details are found in the EIS, Chapter 15, sections 15.6).</li> </ul> <p>Triggers for management actions</p> <ul style="list-style-type: none"> <li>• Management actions will be triggered when the noise from the mining operations is above allowable noise criteria under the Environmental Authority.</li> <li>• If the noise level emitted from the mine is identified to exceed the trigger level of 35 dBA at a monitoring location, further mitigation measures as described in the Noise Management Plan (or equivalent or better measures or strategies) will be considered by the WJV, or the Noise Management Plan will be reviewed, if necessary, to incorporate such further strategies or measures as may be required to achieve the noise objectives.</li> </ul>

Chapter	Commitments
	<p data-bbox="439 384 689 408">Operational Controls</p> <ul style="list-style-type: none"> <li data-bbox="450 424 2051 501">• To mitigate noise impacts to sensitive receptors from mine operations, the WJV will implement a combination of management activities that will include noise monitoring as well as the use of lower noise and noise attenuated machinery in specific mining pits as required, generally in accordance with the mitigation measures outlined in Chapter 15, section 15.6.2 of the EIS and Supplementary EIS.</li> <li data-bbox="450 517 1895 564">• Noise attenuation specifications (or equivalent) will be provided in tender documentation as outlined in EIS Volume 1, Chapter 15, section 15.6.2.</li> <li data-bbox="450 580 1989 628">• Noise measurements of equipment will be undertaken to ensure suppliers meet their noise guarantee commitments. Measurements will be undertaken by a suitably qualified acoustic engineer.</li> <li data-bbox="450 644 2029 721">• If certain stages of operation exceed the noise criteria, further mitigation measures will be implemented which may include attenuation of equipment and/or limiting activities to specified times of day governed by the modelling results. The choice of measures will be undertaken to ensure that the conditions of the Environmental Authority are met.</li> <li data-bbox="450 737 2051 976">• The following attenuation measures (or equivalent) will be implemented, subject to refined attenuation measures determined from noise impact assessments carried out throughout the life of the project: <ul style="list-style-type: none"> <li data-bbox="495 809 1167 833">▸ broadband reversing sirens will be installed on all vehicles</li> <li data-bbox="495 857 2051 904">▸ noise attenuated equipment such as excavators, tracked dozers, mining trucks and water trucks will be used in the Wugabul, Frank Creek and Turkey Hill Pits if monitoring suggests it is required to satisfy the overall noise levels outlined for truck and excavator/shovel operations</li> <li data-bbox="495 928 2051 976">▸ the installation of the remaining attenuation measures to the mobile mining equipment will be considered based on the results of noise monitoring.</li> </ul> </li> </ul> <p data-bbox="439 992 815 1016">Onsite Gas-Fired Power station</p> <ul style="list-style-type: none"> <li data-bbox="450 1032 1951 1080">• To minimise noise impacts associated with the operation of the proposed power station the following measures will be implemented, as appropriate:</li> <li data-bbox="450 1096 1308 1120">• The engine hall will satisfy 85 dBA at 1 m as per manufacturer specification</li> <li data-bbox="450 1136 2051 1184">• The overall complex will satisfy a noise level as per the manufacturer specification of 65 dBA at the boundary fence which will be a minimum 20 m from the radiator cooling towers</li> <li data-bbox="450 1200 1653 1224">• Combustion Emissions will be directed through stacks not less than 21m high and 2.08m effective diameter</li> <li data-bbox="450 1240 1160 1264">• Exit velocity of stack emissions will not be less than 25.5 m/s</li> <li data-bbox="450 1279 1323 1303">• Exit temperature of stack emissions will not be less than 375 degrees celcius</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>• Emission volumes flow from each engine will not be less than 28 m<sup>3</sup> /s</li> </ul> <p>Potable water treatment plant</p> <ul style="list-style-type: none"> <li>• To minimise noise impacts associated with the operation of the potable water treatment plant, the cooling tower is proposed to be located at ground level in a position such that existing and proposed solid structures provide screening to noise sensitive receptors</li> </ul> <p>Noise monitoring</p> <ul style="list-style-type: none"> <li>• Based on the noise impact assessment, a noise monitoring program will be undertaken generally in accordance with the mitigation measures proposed in Chapter 15, Section 15.6.2 of the EIS and Supplementary EIS, subject to refined noise monitoring requirements from future noise impact assessments throughout the life of the project. Noise monitoring locations will be generally in accordance with in Table 15-26 of Chapter 15, and Tables 15-16 and 15-17 of the Supplementary EIS.</li> </ul>
<p>Vibration</p> <p>Chapter 16</p>	<p>Blast Management Plan</p> <ul style="list-style-type: none"> <li>• A Blast Management Plan will be prepared to address the operation phase for all blasting activities of the Project, as detailed in Chapter 16, section 16.4.2.</li> <li>• The Plan will detail performance objectives, actions and procedures and be prepared prior to the respective phases of the Project (i.e. The Blast Management System).</li> <li>• The Plan will include, where appropriate, the proactive/predictive and reactive measures detailed in the EIS and Supplementary EIS, Chapter 16, section 16.6.</li> <li>• Given the extent of this Project and the scattered distribution of receptors, the WJV will adopt a combined approach to vibration impact management which will include management of impacts on site, along with the use of site design and operational controls. Such a strategy will minimise potential impacts to residents.</li> <li>• The Plan will be reviewed, as appropriate, based on monitoring results. Key components of the proposed blast management system include, where appropriate the following (further details are found in Chapter 16, sections 16.6).</li> </ul> <p>General</p> <ul style="list-style-type: none"> <li>• The WJV will undertake, with the cooperation of landowners, condition surveys of buildings and structures within 2 km of blasting activities prior to commencing blasting operations.</li> <li>• Subject to the findings of the condition surveys, the WJV may implement specific mitigation measures for potentially affected structures.</li> <li>• Where buildings or structures are impacted by blasting operations undertaken by the WJV (taking into account the baseline condition surveys), the WJV will “make good” the impacts to buildings or structures from the blasting operations.</li> <li>• A fly rock exclusion zone of 600m around the blasting site will generally be adopted.</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>• The WJV will adopt notification procedures for all blasting events, including signage at the mine site and township.</li> </ul> <p>Triggers for management actions</p> <ul style="list-style-type: none"> <li>• Where monitoring indicates airblast overpressure levels are likely to exceed EPA limits, a trigger action response protocol (TARP) will be implemented, including a review of blasting procedures and other operational controls. If blasting impacts at a sensitive receptor cannot be mitigated to comply with the Environmental Authority, additional mitigation measures will be considered.</li> </ul> <p>Housing and associated infrastructure</p> <ul style="list-style-type: none"> <li>• Table 16.1 of Supplementary EIS Chapter 16 identifies sensitive receptor sites lying outside the Project’s MLAs that are predicted to experience possible airblast overpressures greater than 115 dBl.</li> <li>• These sites will be the subject of further discussion with the relevant owners and further monitoring prior to the predicted adverse impacts. Appropriate mitigatory measures will be considered by the WJV in consultation with the sensitive receptor owners.</li> </ul> <p>The Cemetery</p> <ul style="list-style-type: none"> <li>• Advance notification will be provided to the cemetery manager for proposed blasting activities.</li> <li>• Airblast and vibration levels will be monitored as operations approach the Wandoan cemetery.</li> <li>• Blasting operations will be managed to ensure that the airblast overpressure and ground vibration levels do not exceed the allowable limits at the cemetery.</li> <li>• Condition surveys of the cemetery structures will be undertaken prior to mining of the Leichhardt Pit, and three monthly during mining in the vicinity of the cemetery to monitor any changes that might be identified.</li> <li>• The WJV will liaise with the managers of the cemetery and seek community feedback via the Community Reference Group to manage the nuisance impact of blasts to those visiting the cemetery.</li> </ul> <p>Telstra tower</p> <ul style="list-style-type: none"> <li>• The WJV will continue to consult with Telstra and its representatives to determine whether the Telstra regional communication tower will be affected by the blasting operations and what mitigation or protection measures will be required.</li> </ul> <p>Mine infrastructure</p> <ul style="list-style-type: none"> <li>• Potential impacts and inconveniences from blasting to mine infrastructure and services within the MLA areas will be managed through the mine’s operating protocols and Blast Management Plan.</li> </ul> <p>Blast Monitoring</p> <ul style="list-style-type: none"> <li>• A suitably qualified person will routinely monitor and report on the performance of blasting operations.</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>• The locations and techniques selected for routine monitoring will be based on any community feed-back on performance and will comply with the requirements of AS 2187.</li> <li>• The data will be used to develop local predictive models of these impacts so that blast designs can be tuned to minimise their impacts and improve production performance.</li> <li>• The monitoring program, data analysis, reporting and modelling will form an integral part of the Blast Management Plan recommended under Australian Standard 2187.2.</li> <li>• The Blast Management Plan will include procedures that will avoid blasting in unfavourable weather conditions such as during heavy cloud or rain, adverse winds or during temperature inversions.</li> </ul> <p>Complaints management</p> <p>A site hot line will be established for residents who wish to report air quality, noise or blasting related incidents associated with the operation of the Project. In addition the WJV makes the following commitments:</p> <ul style="list-style-type: none"> <li>• all complaints will be investigated</li> <li>• strategies and targets based on the regular review of air quality, noise and blasting monitoring results and review of complaints will be undertaken as part of the Project’s Environmental Management System requirements.</li> </ul> <p>Accommodation facilities</p> <ul style="list-style-type: none"> <li>• during blasting in Austinvale North, personnel in the area will be informed about blasting times so that the resulting disturbance is not a surprise</li> <li>• during blasting in Austinvale North, blasts will be scheduled for times when Project employees and contractors are not sleeping or resting, but engaged on routine activities; for instance, 8 am or 4 pm may be suitable times for blasts.</li> <li>• Parts of the accommodation facilities and other site infrastructure may fall within the exclusion zone required to protect personnel from the effects of fly-rock for some blasts early in the Project. Procedures will be developed to evacuate these areas during blasting operations.</li> </ul> <p>Leichhardt Highway</p> <ul style="list-style-type: none"> <li>• Parts of the northern section of Frank Creek Pit and Wubagul Pit are located within 600 m of the Leichhardt Highway. Suitable mitigation measures will be implemented to ensure safety of the general public in relation to potential fly rock.</li> </ul>
<p>Ecology</p> <p>Chapter 17</p>	<p>Terrestrial</p> <ul style="list-style-type: none"> <li>• The WJV will develop a Biodiversity and Land Management Plan prior to the start of construction to minimise impact on terrestrial and aquatic ecology from construction and operational phases of the Project. The general scope and application of the Plan is as described in the EIS and Supplementary EIS Volume 1, Chapter 17A, section 17A.5.</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>• During the life of the mine, areas to be rehabilitated will be revegetated where practicable in keeping with company policy and the existing vegetation types. For creek diversions, rehabilitation including revegetation will be undertaken within 1 month of earthworks being completed for any creek diversion. Creek diversion construction will be commenced approximately 4 years prior to any creek diversion being required to accommodate creek flow.</li> <li>• A pest management procedure will be developed to control weeds and feral animals on site during the construction, operational and decommissioning phases of the Project, and as described in Chapter 17A. Pest control procedures will be consistent with guidelines prepared by the Queensland Primary Industries and Fisheries (now the Department of Employment and Economic Development and Innovation) and implemented in consultation with relevant stakeholders. The WJV's Environmental Advisor/s for the Project will be responsible for the development and implementation of the pest management procedure.</li> <li>• Vehicle inspection and washdown / cleandown procedures will be implemented for all vehicles and equipment on entering and leaving the Project area where they have been exposed to weed infestation areas.</li> <li>• The WJV will develop and implement a Biodiversity Offset Strategy as the primary ameliorative measure to minimise the residual impact of the Project on biodiversity, as described in Supplementary EIS Volume 1 Chapter 17A, section 17A.6.4.</li> <li>• Provide a biodiversity offset, to satisfy State and Federal biodiversity offset obligations, in accordance with the following criteria for: <ul style="list-style-type: none"> <li>▸ unavoidable impacts to remnant endangered regional ecosystems within the MLA areas</li> <li>▸ unavoidable impacts to endangered ecosystems (within the meaning of the Environment Protection and Biodiversity Act 1999) within the MLA areas</li> <li>▸ at a ratio of 3:1</li> <li>▸ for a calculated area of up to approximately 122.1 hectares (resulting from not more than 40.7 hectares to be affected).</li> </ul> </li> </ul> <p>Aquatic</p> <ul style="list-style-type: none"> <li>• Supplementary measures that will be adopted to avoid, minimise and mitigate potential impacts of the Project MLA areas and the gas supply pipeline to aquatic flora and fauna are as follows: <ul style="list-style-type: none"> <li>▸ controls will be implemented to reduce the risk of aquatic disease or exotic species transfer associated with micro- and macro-algae, macrophytes and aquatic fauna, including seeds, eggs and larvae</li> <li>▸ turtles and fish stranded by construction activities that have the potential to affect farm dams or creeks will be captured and translocated to suitable waterholes in the same waterway to prevent the transfer of exotic fish or aquatic disease, in accordance with the Fish Salvage Guidelines (DPI&amp;F 2004)</li> </ul> </li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>▶ the construction of permanent creek crossings will be undertaken in accordance with AS2885 and the Australian Pipeline Industry Association Code of Environmental Practice, as detailed in Chapter 17B, section 17B.6.7</li> <li>▶ the WJV commits to incorporating biting insect management into its Health and Safety System for the Project prior to the commencement of construction, as described in Chapter 17B, section 17B.6.8.</li> </ul>
<p>Waste Management  Chapter 18</p>	<ul style="list-style-type: none"> <li>• The WJV will develop a detailed Waste Management Strategy (for Construction and Operation phases of the Project) as part of the Project Environmental Management Plan prior to the commencement construction. The scope and application of the Plan is as generally described in EIS and Supplementary EIS Volume 1, Chapter 18 Waste Management, section 18.7. The strategy will include, where appropriate:               <ul style="list-style-type: none"> <li>▶ measures to eliminate, reduce and beneficial reuse of waste streams</li> <li>▶ preparation of a detailed Waste Management Plan to manage the different waste streams generated by the Project. The Plan will address the following issues:                   <ul style="list-style-type: none"> <li>• identification of all waste streams</li> <li>• the application of the waste management hierarchy when selecting waste management strategies to minimise waste</li> <li>• identification of solid, liquid or hazardous waste collection, storage and or disposal strategies</li> <li>• training of all contract personnel on procedure about waste minimisation, recycling and disposal</li> <li>• removal and transportation of waste from the mine site by appropriately licensed contractors with disposal only to licensed waste disposal and recycling facilities.</li> </ul> </li> </ul> </li> </ul>
<p>Visual Amenity  Chapter 19</p>	<p>The WJV will develop and implement a visual impact plan that will incorporate, where appropriate, the following mitigation measures (or “equivalent or better” measures that may be identified during the life of the Project):</p> <p>At Site Treatments</p> <ul style="list-style-type: none"> <li>• Creation of overburden stockpiles to provide screening to work areas on a case by case basis, taking into account view lines and work areas behind the stockpiles.</li> </ul> <p>Rehabilitation Sequence</p> <ul style="list-style-type: none"> <li>• Rehabilitation and revegetation will commence within two years after an area becomes available for rehabilitation from the mining process.</li> </ul> <p>Landform</p> <ul style="list-style-type: none"> <li>• Existing topographic values will be taken into account in developing final landform rehabilitation.</li> </ul>

Chapter	Commitments
	<p>Land Cover</p> <ul style="list-style-type: none"> <li>Following completion of landform rehabilitation, rehabilitated areas will be sown with seed of various native grass and herbaceous species types that will provide quick short term cover and longer term sustained ground cover, and as far as practicable in keeping with the vegetation types present prior to Project disturbance.</li> </ul> <p>Non Mine Pit MLA Areas</p> <ul style="list-style-type: none"> <li>Consideration will be given to the potential for tree planting on high ground on the outer edge of appropriate mine pits and near the boundary of the MLAs, where such plantings may break up the extent of views to mining pit activities.</li> </ul> <p>Landscape Management Plan</p> <ul style="list-style-type: none"> <li>Development of a landscape management plan will be incorporated as part of the biodiversity and land management plan that is responsive to the ecological, farm uses, mining uses and visual requirements to provide sustainable and realistic landscape outcomes.</li> </ul> <p>At Viewer Location Treatments</p> <ul style="list-style-type: none"> <li>“At viewer” treatments will be adopted, where necessary, in consultation with residents and other sensitive receptors (such as the cemetery and school). At viewer treatments may constitute:             <ul style="list-style-type: none"> <li>determination of primary, secondary and tertiary view zones – to be completed by an appropriately qualified person for dwellings and community facilities that are, or could potentially, be affected. Landscape works or treatment to mitigate impacts to sensitive receptors identified will include, where appropriate, planting around a homestead sensitive receptors</li> <li>mitigation measures for light exposure at night for potentially affected dwellings or community facilities that will have direct line of sight to areas up to 2.5 km from the light source. An assessment of potential light source impacts from various directions will be conducted, where appropriate. For properties where landowners consider themselves to be affected in a significant way beyond 2.5 km away or out of direct line of sight, night time visual impact assessment of their properties will be carried out</li> <li>development of screening treatments for in response to the above view zones. Such zones may require screen planting to completely block views or to create a visual filter, as appropriate. Such plantings will generally include informal mass planting areas, not less than three rows wide</li> <li>consideration of “offset” strategies where impacts are experienced for a considerable period of time. Offset strategies will be developed, where required, in consultation with affected landowners, and may include landscape works on affected properties or screening.</li> </ul> </li> </ul> <p>Sites for Specific Treatment</p> <ul style="list-style-type: none"> <li>Subject to agreement with Main Roads, Western Downs Regional Council and landowners, the WJV will treat public places that have visual impacts from the mine to significantly reduce visual impact and restore the integrity of regional landscape views.</li> </ul>

Chapter	Commitments
Indigenous Cultural Heritage  Chapter 20A	<ul style="list-style-type: none"> <li>• For the MLAs, the WJV will continue to manage indigenous cultural heritage in accordance with the approved Cultural Heritage Management Plan (CHMP).</li> <li>• If the proposed gas supply pipeline is selected for development by the WJV, a comprehensive cultural heritage study will be commissioned over the pipeline area in consultation with the Imam People #2 in order to locate further items, sites or places of cultural heritage significance and to develop appropriate management measures to mitigate potential adverse impacts. The results of this assessment will be incorporated into developing an 'approved' CHMP, as required under the ACHA, for the Gas Supply Pipeline Area.</li> </ul>
Non-Indigenous Cultural Heritage  Chapter 20B	<ul style="list-style-type: none"> <li>• The WJV will develop a Cultural Heritage Management Plan as part of the Project Environmental Management Plan prior to the commencement construction. The Plan will be developed to record and manage items that may be identified during the planning, design and construction of the Project, and record and manage items that will remain in place to prevent inadvertent impacts during the mining activities. The Plan will incorporate the management and mitigation measures described in the Supplementary EIS and EIS Volume 1, Chapter 20B Non-Indigenous Cultural Heritage. Supplementary measures to be undertaken by the WJV where appropriate and in consultation with Western Downs Regional Council, Juandah Historical Society and the community include:               <ul style="list-style-type: none"> <li>▸ document the cultural history of properties located within the MLA and potentially affected by Project development prior to the commencement of construction</li> <li>▸ commission a community memorial to the settlers</li> <li>▸ where practicable, <i>in situ</i> conservation of <i>Booral</i> house and meat shed with appropriate use and maintenance</li> <li>▸ report to DERM regarding the ultimate extent of impacts and the outcome of the Project on the Wandoan-Jackson Camping Reserve and Stock Route.</li> </ul> </li> </ul>
Social and Economic  Chapter 21 and Chapter 22	<ul style="list-style-type: none"> <li>• A comprehensive Social Involvement Plan (SIP), as generally described in section 21.8 of the Supplementary EIS, will be developed for the Project in consultation with the community, Western Downs Regional Council and the Queensland State Government. The SIP will cover the construction and operation phases of the Project.</li> <li>• The WJV will work with government and non-government services providers as a means to ensure appropriate level of community services are continued to be available within the Project area and region.</li> <li>• The WJV will work with local health providers and government agencies to plan for future health service needs.</li> <li>• The WJV work closely with the Queensland Police, particularly in relation to traffic management and associated road safety issues.</li> <li>• The WJV will develop behaviour protocols for all its employees working on the Project, as part of a robust site induction process, including employee sign-off.</li> <li>• The WJV will develop, in cooperation with relevant government agencies, a local employment and training policy, particularly in relation to provision of apprenticeships/traineeships for local youth and the school-based training through partnerships with local schools and training</li> </ul>

Chapter	Commitments
	<p>institutions.</p> <ul style="list-style-type: none"> <li>• A skills audit will be undertaken by the WJV within the local communities to provide an understanding of the range of skills and experience available locally and to determine where training opportunities could be directed. This may be carried out in conjunction with relevant government departments, such as the Department of Education, Training and the Arts.</li> <li>• The WJV will implement a tendering process for Project construction and operation supplies and services to encourage participation by local business.</li> <li>• The WJV will maintain the developed Business and Employment Register to enable local and regional firms and interested persons to be included on a Project information database.</li> <li>• The WJV will encourage the development of business and service provider support networks.</li> <li>• The WJV will implement all mitigation measures as outlined within Chapter 21 (or, in consultation with the local community and government agencies, equivalent or better measures that may be identified during the life of the mine).</li> </ul>
<p>Health and Safety, and Hazard and Risk</p> <p>Chapter 23 and Chapter 24</p>	<p>Construction</p> <p>The following mitigation measures will be implemented through a structure health and safety management system to limit the identified risks during construction:</p> <ul style="list-style-type: none"> <li>• prevent unauthorised access to the mine site during construction by maintaining adequate security measures and ensuring through the public consultation process that the local population is aware of the risk that trespassing entails</li> <li>• keep any works that cannot be secured easily in a safe state with appropriate signage and/or guarding</li> <li>• transport all dangerous goods during construction in accordance with the current Australian Code for the Transport of Dangerous Goods</li> <li>• locate temporary fuel storage tanks away from watercourses and drainage paths, and provide secondary containment through self bunded tanks or with external bunding designed in accordance with AS1940-2004</li> <li>• maintain appropriate procedures and equipment to manage leaks and spills of all dangerous goods used during construction</li> <li>• develop awareness, an appropriate culture, and training programs for construction personnel</li> <li>• keep local communities informed of work in progress and provide awareness training for children especially regarding the danger of heavy vehicles.</li> <li>• educate work teams regarding the need to obey road rules and speed limits, including adapting driving to conditions such as wet weather and sunset.</li> <li>• include travel risks issues (such as driver fatigue) in site inductions and training programs</li> <li>• provide workforce with awareness training regarding venomous snakes and biting insects, areas and times they are most likely to be</li> </ul>

Chapter	Commitments
	<p>encountered, how to react and provide first aid treatment.</p> <ul style="list-style-type: none"> <li>• provide work teams with appropriate first aid equipment to treat bites.</li> </ul> <p>Operations</p> <p>The following mitigation measures will be implemented to limit the identified risks during operation:</p> <ul style="list-style-type: none"> <li>• transport all dangerous goods during operation in accordance with the current Australian Code for the Transport of Dangerous Goods</li> <li>• locate the MIA, fuel farm, bulk lubricant storage area, refuelling points and all other storages away from watercourses and drainage paths that might be contaminated in the event of a leak or spill</li> <li>• design, construct and operate all storage for flammable and combustible liquids in accordance with relevant standards (e.g. AS 1940).</li> <li>• maintain emergency response procedures and equipment to manage leaks and spills of all dangerous goods used during operation</li> <li>• ensure all transport, storage and use of explosives is in accordance with the Explosives Act, AS/NZS 2187.1-1998: Explosives-Storage, transport and use Part 1 (Storage) and the Australian Explosives Code requirements</li> <li>• prevent unauthorised access to the site through appropriate security management</li> <li>• develop and deliver visitor induction programs for all visitors to Project areas during operation, and implement systems to ensure that only appropriately inducted visitors are able to access the site</li> <li>• design blasting patterns and manage shots in accordance with relevant regulations, codes and best practice to minimise the risk of fly rock</li> <li>• identify the safe extent of blasting for all pits close to MLA boundaries that will prevent risk of fly rock outside the MLAs, and enforce the limit for all blasting operations</li> <li>• design all water management systems to handle the expected range of events without losing containment</li> <li>• develop appropriate designs and operating procedures including emergency response and fire fighting for coal stockpiles to minimise any risk of spontaneous combustion</li> <li>• educate work teams regarding the need to obey road rules and speed limits, including adapting driving to conditions such as wet weather and sunset; include travel risk issues in site inductions and training programs</li> <li>• design, operate and maintain the gas pipeline in accordance with the relevant codes, provide warning markers along its length, and prevent unauthorised activity in its easement.</li> </ul> <p>Emergency Response and Action Plan</p> <ul style="list-style-type: none"> <li>• An Emergency Response and Action Plan (ERAP) that is consistent with the WJV's Crisis Management Plan will be developed in consultation with relevant stakeholders, in particular with each of the agencies of the Department of Emergency Services likely to be involved in any emergency:</li> </ul>

Chapter	Commitments
	<p>the Queensland Police Service, the Queensland Ambulance Service, the Queensland Fire and Rescue Service and the Rural Fire Service. The Western Downs Regional Council will also be consulted.</p> <ul style="list-style-type: none"> <li>• The local Counter Disaster Plan and State Planning Policy (SPP) 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide, will be considered in developing the ERAP, and Council will be advised of any implications for the plan that arise from the construction and operation of the Project.</li> <li>• WJV will consult with local health service providers to ensure that provision of emergency health care is included in the procedures. WJV will work with local health service providers to ensure that appropriate resources are available in the local area to address the added demand that the Project is likely to generate.</li> <li>• The ERAP will address all relevant risks that will be maintained and updated through the life of the Project. The ERAP will include:             <ul style="list-style-type: none"> <li>▸ Emergency Response Procedures</li> <li>▸ Emergency Exercises and Drills Guidelines</li> <li>▸ Site Incident Management Team Guidelines</li> <li>▸ Emergency Assistance to the Community.</li> </ul> </li> <li>• The ERAP will identify the primary roles and responsibilities and include provision for regular audit and review, in particular following any incident to confirm that the plan operated as intended or to identify deficiencies.</li> </ul> <p>Health and Safety</p> <p>Taking into account the WJV's objective to eliminate work related injuries and occupational diseases from its operations and to be recognised as a leader in occupational health and safety management, the WJV is committed to providing and maintaining a healthy and safe environment for employees and contractors at its operations through appropriate leadership and systems, and continual improvement of its occupational health and safety performance.</p> <p>Through its Health and Safety Policy, the WJV commits to meeting the requirements of the CSMHA and the Workplace Health and Safety Regulations by committing to:</p> <ul style="list-style-type: none"> <li>• implementing and maintaining Occupational Health and Safety Management Systems</li> <li>• complying with relevant legal and other health and safety requirements as a minimum</li> <li>• complying with company policies and standards</li> <li>• managing occupational health and safety through a continual process of identification, assessment and management of risks</li> <li>• promoting the involvement of employees and contractors in developing systems and improvements</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>• defining and setting occupational health and safety performance targets and measure our performance against industry peers</li> <li>• conducting regular internal and external audits to continually improve systems and performance</li> <li>• communicating company policies and achievements to employees, contractors, visitors and the wider community.</li> </ul> <p>The health controls relating to dust, heat exposure, noise and vibration listed Chapter 23 will generally be implemented for the construction and operation phases of the Project.</p> <p>Dangerous goods and waste</p> <ul style="list-style-type: none"> <li>• Dangerous goods will be stored in accordance with relevant standards, but generally only relatively small inventories (excluding diesel) will be held. Details are provided in the EIS. Material Safety Data Sheets for all dangerous goods used or stored on the Project site will be maintained in a register accessible to Project personnel. Appropriate controls will be established during the preparation of the operations risk register and implemented for the safe use of each item in the inventory.</li> <li>• Waste streams will include waste lubricating oil, which will be stored in a bulk tank for disposal through the project’s waste contractor</li> <li>• Wastewater from the accommodation and MIA facilities will be treated by the upgraded Wandoan wastewater treatment plant.</li> </ul> <p>Odour</p> <ul style="list-style-type: none"> <li>• Waste will be stored to minimise the risk of generating odour issues and attracting vermin to either location.</li> <li>• The expanded Wandoan waste water treatment plant (WWTP) will be designed to continue to provide tertiary treated effluent. The required upgrade of the WWTP will reduce the emission of odour from current levels as detailed in the EIS and will meet EPA’s Guideline — Odour Impact Assessment from Developments, July 2004.</li> </ul> <p>Weeds and feral animals</p> <ul style="list-style-type: none"> <li>• A Weed and Feral Animal management plan will be developed to prevent the spread and proliferation of these pests, both to and from the Project area. This plan will be developed in consultation with neighbouring landholders, community groups and Local and State government agencies before the construction phase begins.</li> </ul> <p>Snakes</p> <ul style="list-style-type: none"> <li>• As part of the employee induction program, employees will be made aware of the risk of snakes, and will be provided with appropriate training and first aid equipment with which to deal with snake bite.</li> </ul> <p>Safety controls</p> <p>Traffic and journey accidents and fatigue management</p> <ul style="list-style-type: none"> <li>• Induction and ongoing awareness training sessions will include the risk of traffic accidents and the need to drive with care at all times. Contractual arrangements, monitoring, and awareness training will be used to ensure compliance with this requirement.</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>• A fatigue management policy will be implemented.</li> <li>• Local residents will be kept aware of any changes expected in traffic during the construction and operations periods. WJV will liaise with the Queensland Police Service to ensure that the driving habits of the workforce do not unduly increase the risk to the rest of the community.</li> </ul> <p>Moving equipment and vehicles</p> <ul style="list-style-type: none"> <li>• Procedures to maintain safe working separations and implement safety lock-out systems for equipment under maintenance, engineering controls to prevent contact or trip equipment, and induction and training programs to introduce and reinforce all procedural requirements, will be used to minimise the risk of injury to low levels.</li> <li>• Roads will be suitably designed to suit the nature and volume of traffic, the topography and likely weather conditions, and constructed and maintained to allow safe operation.</li> <li>• Procedures and rules for safe driving on site, including speed limits, together with standard vehicle safety fittings such as flags, and reversing beepers will assist in reducing the likelihood of collision particularly between light and heavy vehicles.</li> <li>• Vehicle inspection checks will also be undertaken as part of the Project's regular maintenance program.</li> </ul> <p>Explosives and blasting</p> <ul style="list-style-type: none"> <li>• Initiating and bulk explosives will be stored in onsite site magazines and storage facilities Procedures will specify how explosives will be transported, loaded and fired in accordance with the CMSHA, the Explosives Act and AS2187.2-1998: Explosives — Storage Transport and Use, Part 2: Use of Explosives.</li> <li>• This risk arising from the use of explosives and blasting will be reduced to an acceptable industry level by using specialist explosives contractors who are licensed and trained in the transport, handling, mixing and firing of explosives and specialist blasting personnel to ensure blasting design meets the noise, and vibration and safety requirements outlined in the EIS.</li> <li>• Under WJV procedures, access to the blast area will be restricted during firing. These restrictions will include temporary road closure and evacuation warnings on site before blasting, to ensure that persons are at a safe distance from the shot and where necessary wearing the appropriate personal protective equipment (PPE).</li> <li>• The Leichhardt Highway, which follows part of the boundary of MLA 50230, will be closed temporarily during firing in the Frank Creek Pit, to further minimise the risk of flyrock to road users.</li> </ul> <p>Fuel storage and handling</p> <ul style="list-style-type: none"> <li>• Dangerous goods will be stored and transported in accordance with AS1940-2004: The storage and handling of flammable and combustible liquids.</li> <li>• Appropriate fire fighting equipment and systems will be maintained on site for fighting any fires relating to fuel, coal or other flammable or combustible material.</li> </ul>

Chapter	Commitments
	<p>Working at heights</p> <ul style="list-style-type: none"> <li>• The risks of working at heights and from falling objects will be covered by a permit-to-work system. This will specify the necessary PPE and any special safety equipment required, such as harnesses and arrestor systems, lifts and work platforms, for all circumstances where there is a requirement for working at heights.</li> </ul> <p>Confined spaces</p> <ul style="list-style-type: none"> <li>• Confined space procedures will be implemented and required to be followed by anyone entering a confined space. These procedures will be enforced under the WJV health and safety system, and will be supported by appropriate training.</li> <li>• In addition the WJV will carry out the following: <ul style="list-style-type: none"> <li>▸ preparation of a Contractor Management Plan and Contractor Pre-Qualification process</li> <li>▸ planned regular audits of management plan actions and site activities</li> <li>▸ training of personnel in first aid, with designated first aiders in each work area at all times</li> <li>▸ bunding on all hazardous materials and liquids to ensure capture of 110% of the largest container volume within the bund</li> <li>▸ ensuring that suitable spill kits with instructions are available at all times in areas of high risk, with training of personnel in the use of spill kits, correct disposal of used material, and a programme for maintenance and inspection of spill kits</li> <li>▸ installing and maintaining suitable scaffolding for working at height.</li> </ul> </li> </ul> <p>Security</p> <ul style="list-style-type: none"> <li>• Permanent manned security will be in place at the main entrance approximately 5km along the site access road from the intersection with the Leichhardt Highway.</li> </ul>
<p>Decommissioning</p> <p>Chapter 25</p>	<p>the following commitments are made in relation to decommissioning of the mine:</p> <ul style="list-style-type: none"> <li>• Rehabilitation will be undertaken progressively throughout the life of the mine.</li> <li>• The decommissioning of the mine and mine infrastructure will be carried out generally in accordance with the Enduring Value – Australian Minerals Industry Framework for Sustainable Development (to which Xstrata Coal is a signatory), Xstrata Coal's Mine Rehabilitation Review Procedure and Mine Closing Planning Policy, the EPA's Guideline 18 Rehabilitation requirement for mining projects (EPA 2007) and Leading practice sustainable development program for the mining industry: Mine Rehabilitation (Department of Industry, Tourism and Resources 2006) (or equivalent policies available at the time of decommissioning).</li> <li>• All remaining landforms will be made safe in accordance with the Plan of Operations.</li> </ul>

Chapter	Commitments
	<ul style="list-style-type: none"> <li>• All final voids will be made safe once mining is complete in accordance with the Plan of Operations</li> <li>• Mine water management structures will be design and constructed so that, following decommissioning of the Project, the discharge of any water that does not meet relevant water quality guidelines or licence requirements to surface or groundwater systems will be prevented.</li> <li>• Post mining, the MLA land will be returned to a stable, self sustaining state that will require minimal maintenance, likely be returned to cropping, grazing land or bushland.</li> <li>• Post mining, all infrastructure will be removed unless otherwise agreed with the post-mine landowners.</li> <li>• The rehabilitation strategies planned for the open cut mining phase will facilitate the long term stability of 'out of pit' dumps and will promote a revegetation cover that minimises erosion and silt load potentially entering the creek system.</li> <li>• Any dangerous goods or other chemicals will be removed from site and any contaminated areas will be appropriately managed to eliminate any danger to the community.</li> <li>• The proposed airstrip will be retained for continued public use.</li> <li>• All gas and water pipelines will be decommissioned in accordance with the mitigation measures described in the EIS, unless a beneficial reuse can be identified.</li> <li>• Decommission mined pits, final voids, overburden and waste rock dumps, mine industrial area and conveyors, water storage dams and structures (e.g. levees), accommodation facilities and haul roads and access tracks in general accordance with criteria set out in Chapter 25, Table 25.1 of the EIS and section 25.4.7 of the Supplementary EIS.</li> </ul>
<p>Cumulative Impacts Chapter 26</p>	<p>To mitigate key cumulative impacts, the WJV is committed to liaising with individuals, the community and other proponents of projects in the area, so as to minimise adverse and enhance beneficial cumulative impacts through the implementation of the Social Involvement Plan, as generally described in section 21.8 of the Supplementary EIS.</p>